REMARKS

STATUS OF THE CLAIMS

Claims 1-26 are pending in the application.

The claims are objected to under 35 U.S.C. § 112 as being generally narrative and indefinite.

Claims 1-4, 6-8, 10, 11, 13-18, 20-22, 24, and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (U.S. 6,486,895) and Weinberg et al. (U.S. 6,549,944).

Claims 5, 9, 12, 19, and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (U.S. 6,486,895), Weinberg et al. (U.S. 6,549,944), and Gounares (U.S. 6,681,370).

According to the foregoing the claims are amended, and, thus, claims 1-26 remain pending for reconsideration, which is respectfully requested.

No new matter has been added in this amendment.

REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH

According to the foregoing, the claims are amended regarding indefiniteness, taking into consideration the Examiner's comments. Withdrawal of the indefiniteness rejection is respectfully requested.

REJECTIONS OF CLAIMS UNDER 35 U.S.C. §103

In the Office Action, claims 1-4, 6-8, 10-11, 13-18, 20-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson (US 6, 486, 895) in view of Weinberg et al. (US 6,549,944). Independent claims 1, 15, 25 and 26 are amended and are now deemed to be patentable over Robertson in view of Weinberg. In addition, dependent claims 2-4, 6-8, 10-11, 13-14, 16-18, 20-22 and 24 are deemed to be allowable at least due to their dependency from amended independent claims 1 and 15.

In amended claim 1, the claimed present invention provides, "holding means for holding, in an executable manner, a plurality of ~~different~~ ***intermediate data generating means specific to said respective ~~different~~ content ~~types~~items of different content types of the information ~~objects~~object*** for generating respective ***pieces of intermediate data specific to a content type of a particular content item of the information object ~~for display~~, said generated piece of intermediate data comprising at least either of texture data and display form defining data,*** and for holding, in an executable manner, a plurality of different ***display image generating means specific to said respective ~~different~~ content ~~types~~items of different content types of the information ~~objects~~object*** for generating respective display images from said respective generated pieces of intermediate data." Therefore, in contrast to Roberson and Weinberg, amended independent claims 1, 15, 25 and 26, further define the claimed present invention's "***pieces of intermediate data specific to a content type of a particular content item of the information object ~~for display~~, said generated piece of intermediate data comprising at least either of texture data and display form defining data***" (e.g., claim 1).

Support for the claim amendments can be found, for example, on page 18 and FIG. 5 of the present Application. The holding means can be implemented by content type specific data processor functions 10, 20 and 21 in an object data processor 111 in FIGURE 1, and an object display intermediate data generator 12 and an object image generator 14 in each content type specific data processor function. In amended claim 1, a memory is provided for storing the generated pieces of intermediate data (50 in FIG.5) comprising at least either of texture data (53) and display form defining data (51), for rendering display images. Such texture data may contain basic image and its reduced images, which may be defined in claims if necessary. Support for the claim amendments can also be found, for example, on page 33, line 27 to page 34 and FIG 15, of the present Application.

According to the claimed present invention, a benefit is that the generated pieces of intermediate data stored in the memory can be rendered on to a frame memory in real time, i.e., within a frame interval.

However, Robertson (US 6,486,895) and Weinberg (US 6,549,944) fail to disclose such holding means and pieces of intermediate data specific to different content types stored in a

memory as specifically defined in claim 1 of the present invention. Robertson (US 6,486,895) discloses a book metaphor, in which each page has a form of flat surface. Data for rendering the nodes (URL icons) (column 9, line 3) disclosed in Weinberg (US 6,549,944) differs from "***intermediate data***" of the claimed present invention, and, in Weinberg, from the data for rendering the nodes, an information object cannot be fully rendered.

More particularly, in Weinberg (US 6,549,944), double clicking on an icon representing an information object causes a piece of content of the information object to be viewed in a additional separate window, but magnifying such an icon does not cause to such an information object to be viewed, even in combination with Robertson (US 6,486,895).

In contrast to Weinberg, according to the claimed present invention, zooming up an information object reduced in size viewed in a window by moving the point of field of view causes the reduced information object to be gradually magnified within the same window, and eventually a piece of content item of the information object can be viewed, whereby a plurality of linked content items of different content types of an information object can be viewed smoothly or in a continuous manner from one after another.

In other words, the Office Action acknowledges in page 4, lines 1-8 of the Office Action, that Robertson fails to teach the claimed present invention's, "***first means for causing*** said plurality of ~~different~~ intermediate data generating means to generate the respective pieces of intermediate data for displaying ~~respective particular information objects of the different content types~~a particular content item of the information object, when determined according to a geometric relation between said visual field and said ~~respective particular~~ information ~~objects~~object to generate said respective pieces of intermediate data of said ~~respective~~ particular content item of the information ~~objects~~object" and "***second means for causing*** said plurality of different display image generating means to generate display images of said ~~respective~~ particular content item of the information ~~objects~~object from said respective generated pieces of intermediate data, to render the display image on a display memory region, when determined according to the geometric relation between said visual field and said ~~respective~~ particular information ~~objects~~object to display said ~~respective~~ particular content item of the information ~~objects~~object" (e.g., claim 1). These two claimed features can correspond to zooming out and zooming in on an information object that has a plurality of linked content items

of different content types.

Weinberg discloses a graphical representation of a website "as a collection of nodes, with pairs of nodes interconnected by lines. Each node of the map represents a respective content object of the Web site and corresponds to a respective URL ... ***different icons are used to represent the different URL types*** when the nodes are viewed in a sufficiently zoomed-in mode" (See Weinberg, Column 8, lines 40-55). In other words, Weinberg discloses an automated site map generating system which outputs a graphical representation of the website as a collection of nodes, represented as ***icons***, which represent the content of each page, with lines depicting the interconnection of the web pages. For example, if a web page had an image, Weinberg's system would depict that web page as an image icon with lines depicting the connections between that web page and other web pages as connections to the image icon. Even if the web page were purely text, Weinberg would depict that page as a text icon (see Weinberg, for example, FIGS 1-4 and the accompanying text). Therefore, even "in a sufficiently zoomed-in mode," Weinberg only discloses ***displaying an icon*** representing the content of the webpage.

However, Weinberg's displaying an icon representing the content of a webpage differs from the claimed present invention's, "A method of displaying, in a computing apparatus, ~~a plurality of linked information objects~~an information object in a virtual space according to visual field data, where the information ~~objects representing~~object represents one or more respective content items of different content types, and where said visual field data ~~defining~~defines a visual field in said virtual space, said method comprising:" (e.g., claim 25). See, FIG. 13, information object 73 and page 11, lines 21-33 of the present Application. Weinberg fails to teach or suggest at least the claimed present invention's,

> causing ~~the display image of~~ ***said particular ~~information object having the~~ content ~~type~~item of the information object to be generated from said generated intermediate data,*** according to the ***geometric relation between said visual field and said ~~particular~~ information object, to render the display image on the display memory region*** (e.g., independent claim 25).

In a non-limiting example, the present claimed feature of "causing ~~the display image of~~ ***said particular ~~information object having the~~ content ~~type~~item of the information object to***

be generated from said generated intermediate data," would generate the content, for example, a three-dimensional image, audio file or a video, of the information object, "according to the ***geometric relation between said visual field and said ~~particular~~ information object, to render the display image on the display memory region***." Thus, Weinberg's disclosure of "**icons [which] are used to represent the different URL types** when the nodes are viewed in a sufficiently zoomed-in mode" fails to teach or suggest the claimed present invention.

Weinberg also discloses in column 10, lines 16-33, "For example, the user can double-click on the URL icon for an HTML document ... to retrieve and view the corresponding Web page. However, this still differs from the claimed present invention's, "causing ~~the display image of~~ ***said particular ~~information object having the~~ content ~~type~~item of the information object to be generated from said generated intermediate data***, according to the ***geometric relation between said visual field and said ~~particular~~ information object, to render the display image on the display memory region*** (e.g., independent claim 25), because Weinberg require double clicking on an icon which is a representation of a web page, but the claimed present invention generates ***content item of an information object*** according to the ***geometric relation between said visual field and said particular information object***.

The Office Action also relies on Weinberg, column 9, lines 3-62, which discloses "[t]he lines which interconnect the nodes (URL icons) in FIGS. 1-3 . . . represent links between the URLs." Weinberg also discloses "the parent 44 is displayed in the center of the cluster, and the seven children 48 are positioned around the parent 44 over an angular range of 360 degrees. One benefit of the layout pattern is that it allows collections of related nodes to be grouped together on the screen in relative close proximity to one another, making it easy to identify the parent-child relationship of the nodes" (Weinberg, column 11, lines 4-11). In other words, Weinberg discloses a graphical navigable representation of the Web Site as a collection of nodes, which as discussed above are represented by icons (column 10, lines 56-58 and column 8, lines 40-67). In Weinberg, "each node of the map represents a respective content object of the Web site and corresponds to a respective URL. (the term "URL" is used herein to refer interchangeably to both the address of the content object and to the object itself."

However, Weinberg only displays content object represented by an icon by double clicking on the icon (column 10, lines 16-33). Weinberg's icon either alone or as combined with Robertson, fails to disclose or suggest the claimed present invention's,

> processing ~~different~~ data, specific to said respective ~~different~~ content items of different content types, of the information ~~objects~~object, by generating ***a piece of intermediate data specific to a content type of a particular content item of the information object, wherein said generated piece of intermediate data comprises at least either of texture data and display form defining data,*** and generating a display image specific to said particular content ~~type~~item of the ~~particular~~ information object from said generated intermediate data;
>
> causing the ***piece of intermediate data for displaying said particular ~~information object having the content type~~content item of the information object to be ~~generated~~displayed***, according to ***a geometric relation between said visual field and said ~~particular~~ information object***;
>
> storing, in a memory, ***the generated piece of intermediate data for rendering a display image***; and
>
> causing ~~the display image of~~ said ***particular ~~information object having the~~ content ~~type~~item of the information object to be generated from said generated intermediate data***, according to the ***geometric relation between said visual field and said ~~particular~~ information object, to render the display image on the display memory region*** (e.g., claim 25, emphasis added).

Dependent claims 5, 9, 12, 19, and 23 are deemed to be allowable at least for the reasons that amended claim 1, 15, 25, and 26 are allowable.

In view of the claim amendments and remarks, withdrawal of the rejections of pending claims and allowance of pending claims is respectfully requested.

CONCLUSION

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
STAAS & HALSEY LLP

Date: July 7, 2005

By: _____
Mehdi D. Sheikerz
Registration No. 41,307

1201 New York Ave, N.W., Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501